Patent claims

1. A method for restoring a binary signal (4, 8), which can be transmitted via an optical transmission link, from a distorted binary signal (1, 5), the optical transmission link exhibiting a distortion time, characterized by the following method steps:

- determining time intervals (Z1, Z2, ...) which in each case comprise at least twice the distortion time, the clock rate of the binary signal (4, 8) comprising an integral multiple of one time interval (Z1, Z2, ...),
- detecting level changes of the distorted binary signal (1, 5) in the time intervals (Z1, Z2, ...),
- determining level holding times (Ph11, Ph21, Ph22, ...) of the distorted binary signal (1, 5) which in each case indicate how long a level remains unchanged within a time interval (Z1, Z2, ...),
- restoring the binary signal (4, 8) in the time intervals (Z1, Z2, ...)
  - by transferring the detected level in the time intervals (Z1, Z2, ...) in which no level changes have taken place in the distorted binary signal (1, 5), and
  - by transferring the detected level in the time intervals (Z1, Z2, ...) in which level changes have taken place, only when the respective level holding times (Ph11, Ph21, Ph22, ...) reach a predeterminable value.

2. The method as claimed in claim 1, characterized in that the type of distortion "elongated or shortened Low or High pulse", which can be determined in an identification mode of operation, is taken into consideration for weighting the level holding times (Ph11, Ph21, Ph22, ...), for restoring

the binary signal (4, 8) in the time intervals (Z1, Z2, ...) in which level changes took place.

3. The method as claimed in claim 1 or 2, characterized in that, after each level change, the subsequent time intervals (Z1, Z2, ...) are synchronized.

4. A circuit arrangement for carrying out the method as claimed in claim 1, characterized by:

- means for determining time intervals (Z1, Z2, ...) which in each case comprise at least twice the distortion time, the clock rate of the binary signal (4, 8) comprising an integral multiple of one time interval (Z1, Z2, ...),
- means for detecting level changes of the distorted binary signal (1, 5) in the time intervals (Z1, Z2, ...),
- means for determining level holding times (Ph11, Ph21, Ph22, ...) of the distorted binary signal (1, 5) which in each case indicate how long a level remains unchanged within a time interval (Z1, Z2, ...),
- means for restoring the binary signal (4, 8) in the time intervals (Z1, Z2, ...)
  - by transferring the detected level in the time intervals (Z1, Z2, ...) in which no level changes have taken place in the distorted binary signal (1, 5), and
  - by transferring the detected level in the time intervals (Z1, Z2, ...) in which level changes have taken place, only when the respective level holding times (Ph11, Ph21, Ph22, ...) reach a predeterminable value.

5. The circuit arrangement as claimed in claim 4, characterized in that means are provided which take into consideration

the type of distortion "elongated or shortened Low or High pulse", which is determined by the means in an identification mode of operation, for weighting the level holding times (Ph11, Ph21, Ph22, ...), for restoring the binary signal (4, 8) in the time intervals (Z1, Z2, ...) in which level changes took place.

6. The circuit arrangement as claimed in claim 4 or 5, characterized in that means are provided which, after each level change, synchronize the subsequent time intervals (Z1, Z2, ...).